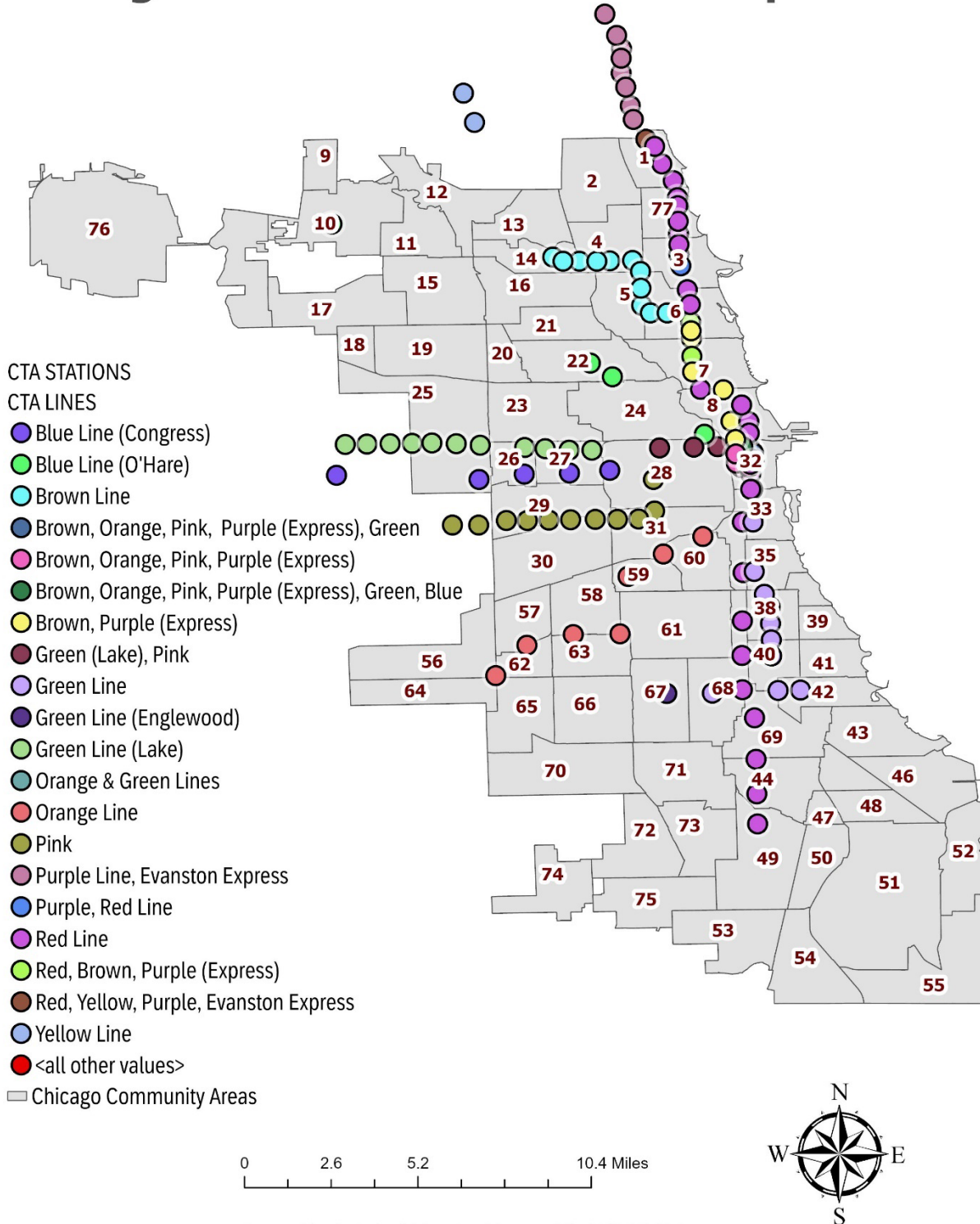


**Research Question:** Where are the CTA Stations concentrated in Chicago? How many Communities have at least one CTA Station? Are there any communities being underserved by CTA Trains?

**SETP 1: Data Extraction, Transformation and Loading into ArcGIS for analysis.**

**Shapefiles needed :** Chicago Community Areas, CTA Stations

## Chicago CTA and Communities Map



Created by Lakshmi Mounica Marupeddi, 08/08/2024

Source: Chicago Data Portal: (1). Boundaries - Community Areas , Aug 2024; (2). CTA-L-Rail-Stations, November 2023.

**The appropriate map type in this case is Unique Values Map because the datatype is non-spatial and is in textual format with multiple categories. Therefore, Unique values map does a good job at representing the data correctly.**

6. How many community areas have at least 1 CTA Station?

**Looking at the representation of different types of CTA lines and CTA stations data across the Chicago Community areas, there are around 43 community areas in Chicago Community area having at least 1 CTA station.**

7. Which communities are underserved by CTA?

**From the Map, it can be observed that there are a handful of communities that are underserved by CTA. The following is a list of community area numbers that have no presence of CTA stations: 9, 17, 18, 19, 20, 21, 16, 15, 16, 11, 12, 13, 2, 65, 66, 70, 71, 72, 73, 74, 75, 76, 50, 51, 52, 53, 54, 55, 43, 46, 47, 48, 39, 41.**

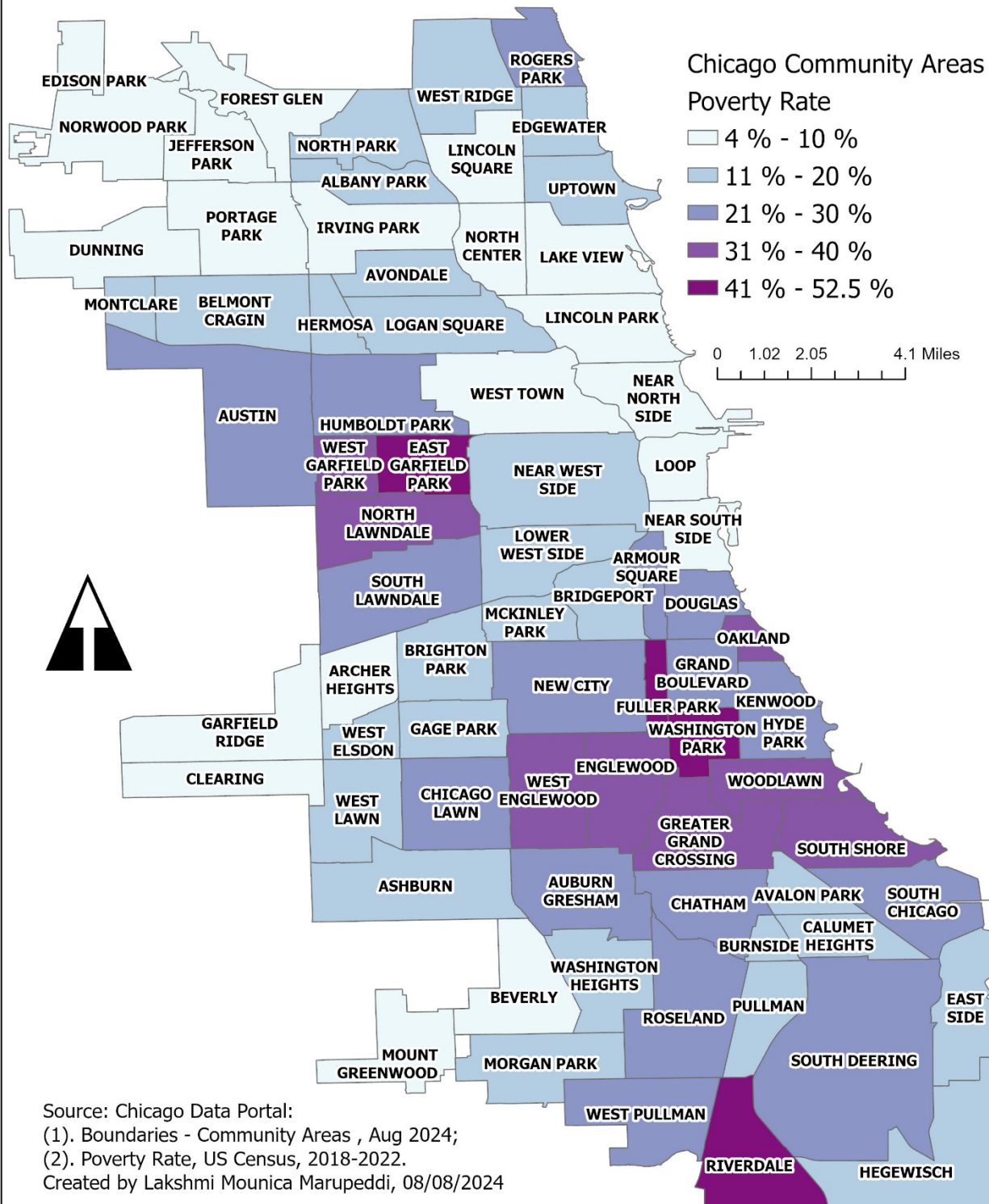
**Research Question:** Where do you see the highest concentration of poverty rates (%) in Chicago?  
**Analyze your data by Chicago community Areas. How many Communities fall under the highest and lowest poverty rate areas?**

**STEP1: Gather and Extract Data from web and other sources.**

**Shapefiles needed :** Chicago Community Areas

**Attribute data needed :** poverty rate (represented as a %)

## Chicago Poverty Rate Distribution



7. How many communities fall under the highest range in your map? Where are they located? – i.e. north, south, east west?

**Considering the Highest range lie in between 41% - 52.5 %, A total of 4 communities fall under highest poverty rate. Two of these communities are located in the mid-eastern side, One in the South most side and One closer to the eastern side**

8. How many communities fall under the lowest range in your map? Where are they located? – i.e. north, south, east west?

**Considering the lowest Poverty rate range lie in between 4 -10 % (Fact: 4% is minimum), There are a total of 20 communities that fall under the lowest range. Around 8 of these are situated along the eastern border, a couple in the southwestern side and remaining, concentrated in the northeastern part of Chicago.**